

## 12. S-BLOCK ELEMENTS

- (1) General Electronic Configuration  $ns^{1-2}$ .
- (2) Atomic Radii increases down the group.
- (3) Hydration enthalpy decreases down the group.
- (4). Ionization enthalpy decreases down the group.
- (5). On reaction with oxygen give oxide, peroxide and superoxides.
- (6) On reaction with water produces hydroxide and hydrogen.
- (7). Some important compounds and their general names.

Name	Chemical Formula	Prepared by
Caustic Soda	NaOH	Electrolysis in costner kellner cell
Washing Soda	$\text{Na}_2\text{CO}_3, 10\text{H}_2\text{O}$	Solvay's process
Baking Soda	$\text{NaHCO}_3$	Solvay's process
Glauber's Salt	$\text{Na}_2\text{SO}_4, 10\text{H}_2\text{O}$	$\text{NaCl} + \text{H}_2\text{SO}_4$
Microcosmic salt	$\text{Na}(\text{NH}_4)\text{HPO}_4$	$\text{NH}_4\text{Cl} + \text{Na}_2\text{HPO}_4$

Potash or Pearl Ash	$\text{K}_2\text{CO}_3$	Leblanc Process
Caustic potash	KOH	Electrolysis of KCl
Quick lime	CaO	Decomposition of $\text{CaCO}_3$
Slaked lime	$\text{Ca}(\text{OH})_2$	Hydrolysis of CaO
Gypsum	$\text{CaSO}_4, 2\text{H}_2\text{O}$	$\text{CaCl}_2 + \text{H}_2\text{SO}_4$
Plaster of Paris	$\text{CaSO}_4, \frac{1}{2} \text{H}_2\text{O}$	By heating gypsum